ABSTRAK

Nama : Rofi Prayoga

NIM : 1127010062

Judul : UJI KEOPTIMALAN MENGGUNAKAN *PROPOSED APPROXIMATION METHOD* (PAM), *VOGEL APPROXIMATION METHOD* (VAM), DAN *MINIMUM TRANSPORTATION COST METHOD* (MTCM) PADA MASALAH TRANSPORTASI

Penelitian ini membahas tentang sebuah masalah transportasi dengan empat buah kasus dimana dua kasus pertama adalah data kasus seimbang dan dua kasus lagi adalah data kasus tidak seimbang yang diselesaikan dengan metode transportasi *Proposed Approximation Method* (PAM), *Vogel Approximation Method* (VAM) dan *Minimum Transportation Cost Method* (MTCM) untuk mencari hasil solusi layak awal, kemudian dilakukan uji optimal dengan menggunakan *Stepping Stone Method* untuk mencari hasil solusi optimal. Berdasarkan hasil penelitian ini diketahui bahwa ketiga kasus menghasilkan nilai solusi *optimal* yang berbeda, dimana metode *Vogel Approximation Method* (VAM) memiliki nilai yang optimal dan lebih efisien dibandingkan dengan metode *Proposed Approximation Method* (VAM) dan *Minimum Transportation Cost Method* (MTCM).

Kata Kunci : Masalah Transportasi, *Proposed Approximation Method* (PAM), *Vogel Approximation Method* (VAM), *Minimum Transportation Cost Method* (MTCM), *Stepping Stone Method*

ABSTRACT

Name : Rofi Prayoga

ID Number : Mathematics

Title : *OPTIMAL TESTS USING PROPOSED APPROXIMATION METHOD (PAM), VOGEL APPROXIMATION METHOD (VAM), AND MINIMUM TRANSPORTATION COST METHOD (MTCM) ON TRANSPORTATION PROBLEM*

This study discusses a transportation problem with four cases where the first two cases are balanced case data and two more cases are unbalanced case data completed with the proposed Approximation Method (VM) and Minimum Transportation Cost Method (MTCM) to find the results of feasible initial solution, then performed the optimal test by using Stepping Stone Method to find the optimal solution results. Based on the result of this research, it is known that the three cases produce different optimum solution value, where Vogel Approximation Method (VAM) method has optimal and more efficient value compared to Proposed Approximation Method (VAM) method and Minimum Transportation Cost Method (MTCM).

Keywords: Transportation Problem, Proposed Approximation Method (PAM), Vogel Approximation Method (VAM), Minimum Transportation Cost Method (MTCM), Stepping Stone Method